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NETWORK SYSTEM, METHOD AND PROTOCOLS FOR HIERARCHICAL SERVICE AND CONTENT DISTRIBUTION VIA DIRECTORY ENABLED NETWORK

Abstract:

5   A network system is provided for management of hierarchical service and content distribution via a directory enabled network to improve performance of the content delivery network with a hierarchical service network infrastructure design. In accordance with the network system, a method and protocols are provided as to how to design the network of multiple data centers running existing Internet protocol and user's proprietary protocols, allowing a user to obtain various Internet services, especially the content delivery service,

10   in a scalable and fault tolerant way. The network system is constructed into 4 layers, each layer is represented and managed by a service manager with back up mirrored managers. The layer 4 service manager is responsible for management of multiple CDN (content delivery network) . The layer 3 service manager is responsible for management of one

15   CDN network that has multiple data centers. The layer 2 service manager is responsible for management of one data center that has multiple server farms or service engine farms. The layer 1 service manager is responsible for all servers in a server farm. Each server of the server farm can be connected by LAN Ethernet Switch Network that supports the layer 2 multicast operations or by Infiniband switch which is the new industry I/O specification for

20   server design.